From: Jonathan Topper <jotopper@rcip.co.il>
To: Guy Sharon/Haifa/IBM@IBMIL
Cc: Suzanne Erez/Haifa/IBM@IBMIL
Date: 02/07/2003 18:48
Subject: New Filing of Patent Application in U. S. A. "ACTIVE MONITORING
            OF DEPENDENCY MODELS" - Your Ref: IL-9-2003-0025 - Our
            Ref: 145650-8 JJT/lh

Dear Guy,

As you know I am handling your application and I am attaching US 2002/0138571, which appears to have some bearing on the general subject matter of your invention. There are, to be sure, features of your invention that are not shown in this published patent application but I would appreciate your briefly reviewing it and letting me know whether it is relevant - even if only by way of background.

I am out of the office until Monday, July 7 but await your e-mail reply with interest.

Regards,

<<US22138571.pdf>>

Jonathan Topper
REINHOLD COHN PARTNERS
P.O.B. 4060 Tel Aviv, Israel 61040
Direct Tel: +972-2-659-5570
Fax: +972-2-652-9139
E-mail: jotopper@rcip.co.il
Website: <http://www.rcip.co.il/>

(See attached file: US22138571.pdf)

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

From: Jonathan Topper <jotopper@rcip.co.il>
To: Guy Sharon/Haifa/IBM@IBMIL
Cc: Suzanne Erez/Haifa/IBM@IBMIL
Date: 03/08/2003 13:35
Subject: New Filing of Patent Application in U. S. A. "Active monitoring
            of dependency models" - Your Ref: IL-9-2003-0025 - Our
            Ref: 145650-8 JJT/lh

Dear Guy,

This will briefly confirm our telephone conversation of July 31, 2003 relating to additional information which I feel is required in order to render the description of your invention completely enabling.

1.   In the first instance, no description is given of the input. I understand that, according to a preferred embodiment, you provide a GUY which permits a system to be configured graphically. Once this is done, your invention processes the topology of the constructed network and compiles automatically the various dependencies and XML files that are then used by the event "engine".

I do not think that any special description of the manner in which the GUI constructs the topology of the network is required; but I do think that the subsequent processing in order to generate the dependency information in the form of XML files is required.

However, on further reflection, there is another consideration: in your preferred embodiment, the program processes the network topology and outputs various XML files representative of the dependencies and attributes. I assume that this information could be conveyed using other formats and would appreciate your guidance on this.

2.   Likewise, a description as to how this is processed by the event "engine" should be given. In general terms, this can be done with the aid of a flow diagram showing the critical steps that are taken. However, I understand this is currently being done by IBM's own event engine called "AMIT". To this extent, we can avoid the need to give a complete description by referring to a publication that describes AMIT in sufficient detail to enable one of average skill in the art to carry out the invention. In other words, it would be sufficient to explain how the XML files are used in general terms by an event engine and then to rely on a prior publication of AMIT to show how the XML files are interfaced wi th AMIT. Therefore, if a suitable publication exists, kindly send me a copy or a patent number so that I can download it if it is a patent reference.

3.   Thirdly, I requested that you give me some brief details as to how the invention is integrated with a real system. Thus, on the one hand, clearly the invention can be used to simulate a business model. However, it can

also be used to flag potential problems that might emerge in a running system in real time owing to a fault that occurs in a component thereof.

You led me to believe that this is, in fact, fairly standard but some brief explanations as to the integration would be very much appreciated, even if in the end I decide not to include it in the final description.

I look forward to receiving the additional information and, of course, if you have any queries, please do not hesitate to contact me.

Jonathan Topper
REINHOLD COHN PARTNERS
P.O.B. 4060 Tel Aviv, Israel 61040
Direct Tel: +972-2-659-5570
Fax: +972-2-652-9139
E-mail: jotopper@rcip.co.il
Website: <http://www.rcip.co.il/>

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

From: "Jonathan Topper" <jotopper@rcip.co.il>
To: Guy Sharon/Haifa/IBM@IBMIL
Cc: Suzanne Erez/Haifa/IBM@IBMIL
Date: 20/09/2003 22:49
Subject: New Filing of Patent Application in U. S. A. "Active monitoring
             of dependency models" - Your Ref: IL-9-2003-0025 - Our Ref:

Dear Guy and Suzanne,

I am sorry that this first draft has taken so long: the truth is that I have struggled and this has caused delays.

I am attaching a partial draft: "partial" in the sense that we need to add claims and I prefer to discuss this with Guy so that we can do this "interactively" over the telephone (I have found this an effective technique in the past).

Since the invention requires - but need not include - a situation awareness unit (such as AMIT) and models business components using syntax that must be conformed to the situation awareness unit being used, this requires some description of the basic syntax used by AMIT. I have basically copied the relevant description from your earlier application USSN 09/473,205 (when incidentally was it filed?). Specifically, Figs. 1 and 2 are lifted from that application as well as most of the accompanying description. I am not at all sure whether the description is completely enabling without a further description of AMIT: I leave this to you to advise. I would ideally have liked to refer to a publication describing AMIT; but failing this - and bearing in mind that USSN 09/473,205 has not yet been published - I am constrained to describing as much about AMIT at least to allow the requisite interfacing with the modeling system of the invention. I repeat that I am by no means satisfied that I have included just sufficient to enable one of average skill in the relevant arts to be able to carry out the invention.

My text includes various questions that require Guy's further input: these are identified by the word [GUY: ..] in red script. I await your answers.

I hope that you find the script readable and logically developed. You may prefer to move sections around and if you wish to make amendments, then I would much prefer you to make the necessary changes (if possible using Microsoft Word's revision tracking). This is much easier for me that sending a long list of requested amendments!

I await your comments and clarifications.

<<1456508.zip>>

Jonathan Topper

REINHOLD COHN PARTNERS

P.O.B. 4060 Tel Aviv, Israel 61040

Tel: +972-2-651 8880 ext. 111

Fax: +972-2-652 3336

E-mail: jotopper@rcip.co.il

Website: <http://www.rcip.co.il/>

Announcement of Confidentiality

    ----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

    From: "Jonathan Topper" <jotopper@rcip.co.il>
    To: Guy Sharon/Haifa/IBM@IBMIL
    Cc: Suzanne Erez/Haifa/IBM@IBMIL, Hadas Cohen
                Bar-Gil/Haifa/IBM@IBMIL
    Date: 15/10/2003 13:19
    Subject: New Filing of Patent Application in U. S. A. "Active
monitoring
                of dependency models" - Your Ref: IL-9-2003-0025 - Our Ref:
                145650-8 JJT/lh

    Dear Guy,

    Further to our telephone conversation this morning, I am attaching an
updated version of the application showing tracked changes. Please note my
tracked changes also to the description and note I have changed some definitions
and requested some minor clarifications. I look forward to receiving your
answers.

    The specification now contains a complete set of claims. Please review and
let me have

    your comments as soon as possible. Likewise, please advise if you think
important claims are missing.

    The drawings are basically the same as last time: the only difference being
that I labeled Figs. 1 and 2 as "PRIOR ART" since they are shown in US

6,604,093 (the AMIT patent).

The attached WINZIP file is protected using our usual password. If you have forgotten it either ask Hadas or contact me on 053 426 324 or on the number shown below in my autosignature.

Best wishes and Hag Sameach!

<<1456508.zip>>

Jonathan Topper

REINHOLD COHN PARTNERS

P.O.B. 4060 Tel Aviv, Israel 61040

Direct Tel: +972-2-659-5570

Fax: +972-2-652-9139

E-mail: jotopper@rcip.co.il

Website: <http://www.rcip.co.il/>

Announcement of Confidentiality

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

From: "Jonathan Topper" <jotopper@rcip.co.il>
To: Suzanne Erez/Haifa/IBM@IBMIL, Hadas Cohen
        Bar-Gil/Haifa/IBM@IBMIL
Cc: Guy Sharon/Haifa/IBM@IBMIL, Asaf Adi/Haifa/IBM@IBMIL
Date: 21/10/2003 01:48
Subject: New Filing of Patent Application in U. S. A. "Active monitoring
        of dependency models" - Your Ref: IL-9-2003-0025 - Our Ref:
        145650-8 JJT/lh

Dear Suzanne,

I received a message from Asaf yesterday (Monday) confirming that he has no more comments and explaining two terms (SOAP and MQ) on page 19. I have expanded the description relating to these terms accordingly. Likewise, in the spirit of Guy's comment in his e-mail of October 15, 2003 that mandatory and "N out of M" are just two of many possible dependency types, I have added new claims 8 and 24. Claims 9 and 10 are dependent on new claim 8 (they were previously dependent on claim 1). The same applies to claims 25 and 26 which are now dependent on new claim 24 rather than the main system claim.

The application is now ready for filing.

The attached WINZIP file is password-protected with our usual password. The first sheet of drawings is formatted to IBM's procedural requirements.

Best wishes,

<<1456508.zip>>

Jonathan Topper

REINHOLD COHN PARTNERS

P.O.B. 4060 Tel Aviv, Israel 61040

Direct Tel: +972-2-659-5570

Fax: +972-2-652-9139

E-mail: jotopper@rcip.co.il

Website: <http://www.rcip.co.il/>

Announcement of Confidentiality

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

From: Guy Sharon/Haifa/IBM
To: "Jonathan Topper" <jotopper@rcip.co.il>

Date: 29/09/2003 16:24

Subject: Re: New Filing of Patent Application in U. S. A. "Active
monitoring of dependency models" - Your Ref: IL-9-2003-0025 -
Our Ref: 145650-8 JJT/lh

Hi Jonathan,

Shana Tova.

I would like to schedule a phone call with you to discuss some of the
issues you raised in the patent and answer your questions.

Please contact me (best through my mobile phone 053-608506).

Regards,

Guy Sharon
Active Technologies Department
IBM Research and Development Laboratories in Israel
Phone: (972)-3-6401617
Haifa: (972)-4-8296540

"Jonathan Topper"
<jotopper@rcip.co   To: Guy Sharon/Haifa/IBM@IBMIL
.il>   cc: Suzanne
Erez/Haifa/IBM@IBMIL

                                 Subject: New Filing of Patent
Application in U. S. A. "Active
                21/09/2003 00:47   monitoring of dependency
models" - Your Ref: IL-9-2003-0025 - Our

                                    Ref: 145650-8 JJT/lh

Dear Guy and Suzanne,

I am sorry that this first draft has taken so long: the truth is that I have struggled and this has caused delays.

I am attaching a partial draft: "partial" in the sense that we need to add claims and I prefer to discuss this with Guy so that we can do this "interactively" over the telephone (I have found this an effective technique in the past).

Since the invention requires - but need not include - a situation awareness unit (such as AMIT) and models business components using syntax that must be conformed to the situation awareness unit being used, this requires some description of the basic syntax used by AMIT. I have basically copied the relevant description from your earlier application USSN 09/473,205 (when incidentally was it filed?). Specifically, Figs. 1 and 2 are lifted from that application as well as most of the accompanying description. I am not at all sure whether the description is completely enabling without a further description of AMIT: I leave this to you to advise. I would ideally have liked to refer to a publication describing AMIT; but failing this - and bearing in mind that USSN 09/473,205 has not yet been published - I am constrained to describing as much about AMIT at least to allow the requisite interfacing with the modeling system of the invention. I repeat that I am by no means satisfied that I have included just sufficient to enable one of average skill in the relevant arts to be able to carry out the invention.

My text includes various questions that require Guy's further input: these are identified by the word [GUY: ..] in red script. I await your answers.

I hope that you find the script readable and logically developed. You may prefer to move sections around and if you wish to make amendments, then I would much prefer you to make the necessary changes (if possible using Microsoft Word's revision tracking). This is much easier for me that sending a long list of requested amendments!

I await your comments and clarifications.

 <<1456508.zip>>

Jonathan Topper

REINHOLD COHN PARTNERS

P.O.B. 4060 Tel Aviv, Israel 61040

Tel: +972-2-651 8880 ext. 111

Fax: +972-2-652 3336

E-mail: jotopper@rcip.co.il

Website: <http://www.rcip.co.il/>

Announcement of Confidentiality

1456508.zip has been removed from this note on September 29, 2003 by Guy Sharon

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

From: Guy Sharon/Haifa/IBM
To: Jonathan Topper <jotopper@rcip.co.il>
Date: 21/08/2003 12:56
Subject: Re: New Filing of Patent Application in U. S. A. "Active
           monitoring o f dependency models" - Your Ref:
           IL-9-2003-0025 - Our Ref: 145650-8 JJT/1   h

Hello Jonathan,

The response took some time because I wanted feedback from the other two authors who were abroad.

Please find attached the response to each of the three issues.
(See attached file: patentExpFurther.doc)

Regards,
Guy Sharon
Active Technologies Department
IBM Research and Development Laboratories in Israel
Phone: (972)-3-6401617
Haifa: (972)-4-8296540

                        Jonathan Topper
                        <jotopper@rcip.co   To: Guy Sharon/Haifa/IBM@IBMIL
                        .il>   cc: Suzanne
Erez/Haifa/IBM@IBMIL
                                              Subject: New Filing of Patent
Application in U. S. A. "Active
                        03/08/2003 14:33   monitoring o f   dependency
models" - Your Ref: IL-9-2003-0025 -
                                                 Our Ref: 145650-8 JJT/1   h

    Dear Guy,

This will briefly confirm our telephone conversation of July 31, 2003 relating to additional information which I feel is required in order to render the description of your invention completely enabling.

1.   In the first instance, no description is given of the input. I understand that, according to a preferred embodiment, you provide a GUY which permits a system to be configured graphically. Once this is done, your invention processes the topology of the constructed network and compiles automatically the various dependencies and XML files that are then used by the event "engine".

I do not think that any special description of the manner in which the GUI constructs the topology of the network is required; but I do think that the subsequent processing in order to generate the dependency information in the form of XML files is required.

However, on further reflection, there is another consideration: in your preferred embodiment, the program processes the network topology and outputs various XML files representative of the dependencies and attributes. I assume that this information could be conveyed using other formats and would appreciate your guidance on this.

2.   Likewise, a description as to how this is processed by the event "engine" should be given. In general terms, this can be done with the aid of a flow diagram showing the critical steps that are taken. However, I understand this is currently being done by IBM's own event engine called "AMIT". To this extent, we can avoid the need to give a complete description by referring to a publication that describes AMIT in sufficient detail to enable one of average skill in the art to carry out the invention. In other words, it would be sufficient to explain how the XML files are used in general terms by an event engine and then to rely on a prior publication of AMIT to show how the XML files are interfaced wi th AMIT. Therefore, if a suitable publication exists, kindly send me a copy or a patent number so that I can download it if it is a patent reference.

3.   Thirdly, I requested that you give me some brief details as to how the invention is integrated with a real system. Thus, on the one hand, clearly the invention can be used to simulate a business model. However, it can also be used to flag potential problems that might emerge in a running system in real time owing to a fault that occurs in a component thereof.

You led me to believe that this is, in fact, fairly standard but some brief explanations as to the integration would be very much appreciated, even if in the end I decide not to include it in the final description.

I look forward to receiving the additional information and, of course, if you have any queries, please do not hesitate to contact me.

Jonathan Topper
REINHOLD COHN PARTNERS
P.O.B. 4060 Tel Aviv, Israel 61040
Direct Tel: +972-2-659-5570
Fax: +972-2-652-9139
E-mail: jotopper@rcip.co.il
Website: <http://www.rcip.co.il/>

Announcement of Confidentiality
This e-mail message, as well as any attached document, is confidential and may be privileged. It may be read, copied and used only by the addressee.
If you have received it in error please destroy the message and any attachment and contact us immediately.

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

Dear Jonathan,

We reviewed the patent you sent and came up with three seemingly relevant points. Following is a list of differences between the patent and our invention concerning each point and therefore, in our opinion, prove that there is no relevance. The rest of the patent lists irrelevant features.

Domain

The patent describes a domain of business services including IT infrastructure and applications. Events from the IT infrastructure and transaction events make up the operational representation of business services. The patent lists types and hierarchy of events such as ise - instrumentation standard event and bsd - base status event dependency. All events have an important field called severity (with values from unknown to fatal). fig. 27 and 28.

Our invention can handle any domain. The domain information is part of the input to a system implementing our invention. Any domain can be represented, monitored and managed by the invention. Entities representing components in a domain can be described, so can events with different fields (not necessarily severity) and semantics of dependencies is also an input. Examples of domains:

Workflow where entities are activities in a workflow, events are start, end ,etc. of activities, and dependencies are splits,joins etc.
Metric Management where entities are metrics, events that result in value change of a metric, and dependencies - functions/directives/rules for assigning a value to a metric that is dependent on other metrics.

Dependency Semantics

The patent describes how one event is translated into another from low level IT events to business service events or as the patent calls it "event abstraction", paragraphs [0132] to [0136]. In most cases the abstraction is described precisely in the invention, e.g. bsc - base status event consolidated is derived from the severity values of bsa and bsf events - if both are HARMLESS then translate to OPERATIONAL, etc. In other cases configurable rules describe the translation, e.g. for abstraction of bsi events to bsd events, configurable translation tables called "Impact Propagation Policy" are used - CRITICAL severity of bsi event is translated to MINOR severity of bsd event in Policy 2 fig. 25.

Our invention receives all rules as input (what we call roles and dependencies) and these rules are not necessarily translation rules. Dependencies are expressed using the powerful rule language of the Situation Manager. The affect of an event on an entity or the triggering rules of an event by an entity is received as input to a system implementing our invention through roles. Another feature in the invention is the building of more complex dependencies upon other dependencies previously defined.

Role example: A server_down event with value for attribute host equals 127.0.0.1 will have the effect of changing the value for attribute state of the entity server with IP=127.0.0.1 to the value "state_down". Dependency example: dependency mandatory means that an entity has the worst state value from all the entities it depends (mandatory) on. Therefore, an application state value is "critical" because the two resources it depends (mandatory) on are one in state "ok" and the other in state "critical".

Model

Part of the patent describes the abstraction/translation of events - how an IT infrastructure situation translates to a business service incident. In scientific literature this description is regarded as part of an event model.

Our invention describes a dependency model between entities. Events are used for reporting the entities' information to the Situation Manager for evaluating the information of dependent entities according to dependency semantics. This information can be any information of any

entity - not necessarily severity of events representing operational
aspects of components in a business service domain.

Regards,

Guy Sharon
Active Technologies Department
IBM Research and Development Laboratories in Israel
Phone: (972)-3-6401617
Haifa: (972)-4-8296540

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

From: Guy Sharon/Haifa/IBM
To: jotopper@rcip.co.il
Date: 23/07/2003 13:29
Subject: Patent

Hi Jonathan,

I have not heard from you since I sent you our comments on the patent you
sent us beginning of July. Did you receive my note on this issue?

Regards,

Guy Sharon
Active Technologies Department

IBM Research and Development Laboratories in Israel

Phone: (972)-3-6401617

Haifa: (972)-4-8296540

----- Forwarded by Guy Sharon/Haifa/IBM on 29/07/2010 19:49 -----

From: Guy Sharon/Haifa/IBM

To: jotopper@rcip.co.il

Cc: Asaf Adi/Haifa/IBM@IBMIL

Date: 01/10/2003 20:39

Subject: Claims

Hi Jonathan,

Asi and I reviewed the existing claims and have the following remarks:

The first claim describes a dependency model which is something that is widely known - this is not our invention - however it should be added somewhere that existing dependency models may be converted / imported into our invention.

Our invention is not the execution engine either - AMIT is.

We need your help in this but for a starter we see that our invention is the continuous integration (active dependency integration) between the model to the execution engine and vise versa - in doing that you need:
  dependency model
  semantics of dependencies - (with an/many engine implementing them)
  compound dependencies
  effects of events on entities
  propagation
  execution
  ...

If you want to discuss this further please contact me at 053-608506

Guy Sharon

Active Technologies Department

IBM Research and Development Laboratories in Israel

Phone: (972)-3-6401617

Haifa: (972)-4-8296540

Guy Sharon

Manager

Event-based
Middleware &
Solutions
Group

phone :   +972 4 8296587

mobile :   +972 54 6976417

address : IBM R&D Labs in Israel, Haifa University Campus,
Mount
           Carmel, Haifa, 31905, Israel

email :   guysh@il.ibm.com